

LINCOLN CITY/LANCASTER COUNTY PLANNING STAFF REPORT

for April 28, 2004 PLANNING COMMISSION MEETING -REVISED REPORT-

P.A.S.: County Special Permit #04012

PROPOSAL: To allow a 255' tower for wireless facilities with waiver to fall zone.

LOCATION: Northeast of the intersection of South 148th Street and Highway 2.

LAND AREA: A 3,600 square foot leased compound area on an approximately 20 acre parcel.

CONCLUSION: There are no other facilities in the area capable of accommodating this carrier's facilities while still providing an acceptable level of coverage. A new tower is justified to accommodate this carrier, and this request complies with the requirements of the Zoning Regulations and the Comprehensive Plan.

RECOMMENDATION:

County Special Permit #04012

Conditional Approval

Waiver to Fall Zone

Approval

GENERAL INFORMATION:

LEGAL DESCRIPTION: See attached ownership certificate.

EXISTING ZONING: AG Agriculture

EXISTING LAND USE: Agriculture

SURROUNDING LAND USE AND ZONING:

North:	Agriculture	AG
South:	Agriculture	AG
East:	Agriculture	AG
West:	Agriculture	AG

COMPREHENSIVE PLAN SPECIFICATIONS:

Page F25 - The 2025 Comprehensive Plan's Land Use Plan designates agricultural land uses in this area.

Page F126 - Wireless Telecommunications - The placement and construction of such facilities need to occur in a way that is compatible with the natural and built environment. Taller, more intensive facilities should be located in commercial and industrial areas. Facilities in residential areas should be unobtrusive, of a scale consistent with the neighborhood setting, and sited in a way that does not detract from the enjoyment of the neighborhood by its residents.

TOPOGRAPHY: The land is rolling farmland in this area. The ground elevation rises from Highway 2 to approximately the center of Section 27 which is the high point in the area.

TRAFFIC ANALYSIS: The access easement to the tower site is off of South 148th Street, a paved county road adjacent to the west.

ANALYSIS:

This application was previously considered by the Planning Commission during the March 31, 2004 hearing. Per staff's recommendation, the Planning Commission voted to defer the application for four weeks to allow time for the applicant to address deficiencies in the application. In response, the applicant has provided a correct legal description, and has provided documentation addressing why collocation on other towers in the area is not feasible. This staff report was revised using this new information.

STANDARDS FOR EVALUATION:

Conformity with Comprehensive Plan.

1. The Comprehensive Plan designates agricultural uses in this area. This request is consistent with the type of development recommended by the Land Use Plan for rural areas.

Preference of site location in accordance with Section 10.008.

2. There are three location preferences as follows:

A. Preferred Location Sites:

(1) Publicly owned sites on which personal wireless facilities can be unobtrusively located with due regard to visibility, aesthetic issues, traffic flow, public safety, health and welfare. Such sites may include locating on existing buildings, co-locating on existing towers, screened roof-top mounts, water towers, billboards, electric substations, or other camouflaged sites, but shall not include new towers.

(2) Privately owned sites with existing structures on which personal wireless facilities can be unobtrusively located with due regard to visibility, aesthetic issues, traffic flow, public safety, health and welfare. Such sites may include locating on existing buildings, co-locating on existing towers, screened rooftop mounts, water towers, billboards, electric substations, or other camouflaged sites, but shall not include new towers.

(3) Publicly owned sites in which the facility is minimally obtrusive, has a minimal impact on the surrounding area, is an appropriate distance from residential land uses, has minimal impact on residential uses, with due regard being given to the scale of the facility and the surrounding area and the impact on the location.

(4) Sites in commercially or industrially zoned districts in which the facility is minimally obtrusive, has a minimal impact on the surrounding area, is an appropriate distance from residential land uses, has minimal impact on residential uses, with due regard being given to the scale of the facility and the surrounding area and the impact on the location.

B. Limited Preference Sites, in order of priority:

- (1) Sites on other public property.
- (2) Sites on other commercially or industrially zoned property.
- (3) Screened antennas on multi-family residential structures exceeding 30' in height.
- (4) Camouflaged structures with minimal impact on residential land uses.

C. Sensitive Location Sites. Sites located in areas with residential uses, environmentally sensitive areas, Capitol View Corridors, the Capitol Environs District, entryway corridors, downtown, landmarks or landmark districts, properties listed or eligible to be listed on the National Register of Historic Places, the Airport Environs, and other sensitive areas. The applications for personal wireless facilities which are located at sensitive sites will be required to demonstrate a technical need to locate a personal wireless facility at a sensitive site and that other reasonable alternatives do not exist for the facility at a location which is not a sensitive site.

This application is considered a sensitive location site, as it does not meet the criteria of A or B above, and agricultural areas such as where this tower is to be located have residential uses. In sensitive location sites, the applicant is required to demonstrate what good faith efforts were taken to locate at a preferred or limited preference site, and why a preferred or limited preference site was not used if available.

Compatibility with abutting property and land uses.

3. There is one farmstead in the vicinity, approximately 1/3 mile to the southwest of the site on South 148th Street. Otherwise, all surrounding lands are zoned AG and used

for agricultural purposes. Except for the tower compound area, the area around the tower can still be put to productive agricultural use.

A waiver to the fall zone from the required 127.5' to 66' is being requested. Given the surrounding land uses and the unlikelihood of development in this area in the foreseeable future, the impact of this waiver is minimal. A waiver also allows the tower to be moved to the edge of the field and minimizes the disruption to farming.

Adverse impacts such as visual, environmental or noise impacts.

4. The proposed tower site is near the center of the section, and is sited to take advantage of the elevation provided by the terrain. At this location, the visual impact of the tower is partially diffused against the backdrop of the adjacent tree line to the north

Availability of suitable existing structures for antenna mounting.

5. Because this site is a sensitive location site, the applicant is required to eliminate all other preferred or limited preference sites within ½ mile of the proposed site, and demonstrate why they are not feasible per Section 10.010(c) of the Zoning Regulations. This would include any potential collocation sites that would accommodate this carrier's antennas. In this case, there are no preferred or limited preference sites within either the search ring provided by the applicant, or within ½ mile of the proposed site.

However, three water tanks and six other towers are visible from the proposed site. They range in distance from approximately 3.5 to 5.5 miles away. The three water tanks and four of the towers are to the west on the east edge of Lincoln, and two of the towers are to the east near the Lancaster County line. While these towers are beyond the search ring submitted by the applicant, staff understands that the search ring delineates for optimal coverage but does not eliminate the possibility of collocating beyond the ring, albeit with reduced but adequate coverage. To be consistent with the intent of the Zoning Regulations and help limit tower proliferation by maximizing the use of existing facilities, the applicant was asked to demonstrate a good faith effort and show that collocation is not feasible beyond ½ mile from the proposed site.

Part of the information re-submitted by the applicant includes an evaluation of the feasibility of collocation on one of these facilities, and includes both a narrative explanation as well as a coverage map. According to this evaluation, collocation on any of the existing towers at the east edge of Lincoln would not significantly improve the carrier's coverage in the area of need. Such a collocation puts the antennas too close to existing facilities along the east edge of Lincoln, and too far away from those east of the county line.

The attached letter from the applicant provides a discussion of what are known as Basic Trading Areas (BTA's), and it relates to those towers outside Lancaster County. BTA's are jurisdictional boundaries (most often they follow county or state lines) established by the Federal Communications Commission (FCC) as a mechanism for regulating wireless frequencies. According to the applicant, the system requirements imposed upon the carrier due to the transition from one BTA to another eliminates the towers east of the county line from consideration.

Scale of facility in relation to surrounding land uses.

6. Compatibility of scale is partially provided by the amount of separation between the proposed tower and surrounding uses, and acts as a mitigating factor in the siting of the tower.

Impact on views/vistas and impact on landmark structures/districts, historically significant structures/districts, architecturally significant structures, landmark vistas or scenery and view corridors from visually obtrusive antennas and back-up equipment.

7. There are no significant impacts noted in this area.

Color and finish.

8. There are two color and finish options for towers in excess of 200' in height per Federal Aviation Administration (FAA) regulations. They can either have a galvanized finish, or be painted international orange and white. Towers painted orange and white are allowed to have red lights, night and day. Galvanized towers are required to have white lights during the day, but can have red lights at night. Color and lighting is a tradeoff - the orange and white towers are more visible and less transparent than a galvanized finish during the day, however the white light is more noticeable than the red. As the Zoning Regulations require a galvanized finish, the least obtrusive lighting option includes white during the day and red at night.

As previously requested by staff, the site plan has been revised and now includes a note indicating that the tower will have a galvanized finish, and that the required lighting will consist of white lights during the day and red lights at night.

Ability to collocate.

9. The applicant states that this tower is designed to accommodate a total of five carriers, two more than required by the Zoning Regulations.

Screening potential of existing vegetation, structures and topographic features, and screening potential of proposed facilities, ground level equipment, buildings and tower base.

10. As noted previously, siting the tower adjacent to the tree line partially diffuses the visual impact of the tower. No additional screening beyond that is proposed.

Evidence of good faith efforts, and demonstration that a preferred or limited preference site was not technically, legally, or economically feasible.

11. As noted in #5 above, there are no preferred or limited preference sites within ½ mile of the proposed site. However, the applicant complied with staff's request to evaluate the other existing towers and water tanks within approximately five miles of this site, beyond what is required by the Zoning Regulations. Based upon the information submitted, staff is confident that collocation on an existing facility is not feasible, and that a new tower to allow this carrier to provide coverage to it's customers is justified.

CONDITIONS:

Site Specific:

1. This approval permits a 255' broadcast tower capable of accommodating at least five carriers consistent with the site plan submitted.

General:

2. Before receiving building permits:
 - 2.1 The permittee shall have submitted 5 copies of the final plans and the plans are acceptable.
 - 2.2 The construction plans shall comply with the approved plans.
 - 2.3 A surety approved by the County Attorney in an amount sufficient to guarantee removal of the facility.

Standard:

3. The following conditions are applicable to all requests:
 - 3.1 Before use of the facility all development and construction shall have been completed in compliance with the approved plans.

- 3.2 All privately-owned improvements shall be permanently maintained by the owner.
- 3.3 The site plan accompanying this permit shall be the basis for all interpretations of setbacks, yards, locations of buildings, location of parking and circulation elements, and similar matters.
- 3.4 This resolution's terms, conditions, and requirements bind and obligate the permittee, its successors and assigns.
- 3.5 The applicant shall sign and return the letter of acceptance to the County Clerk within 30 days following the approval of the special permit, provided, however, said 30-day period may be extended up to six months by administrative amendment. The clerk shall file a copy of the resolution approving the special permit and the letter of acceptance with the Register of Deeds, filing fees therefor to be paid in advance by the applicant.

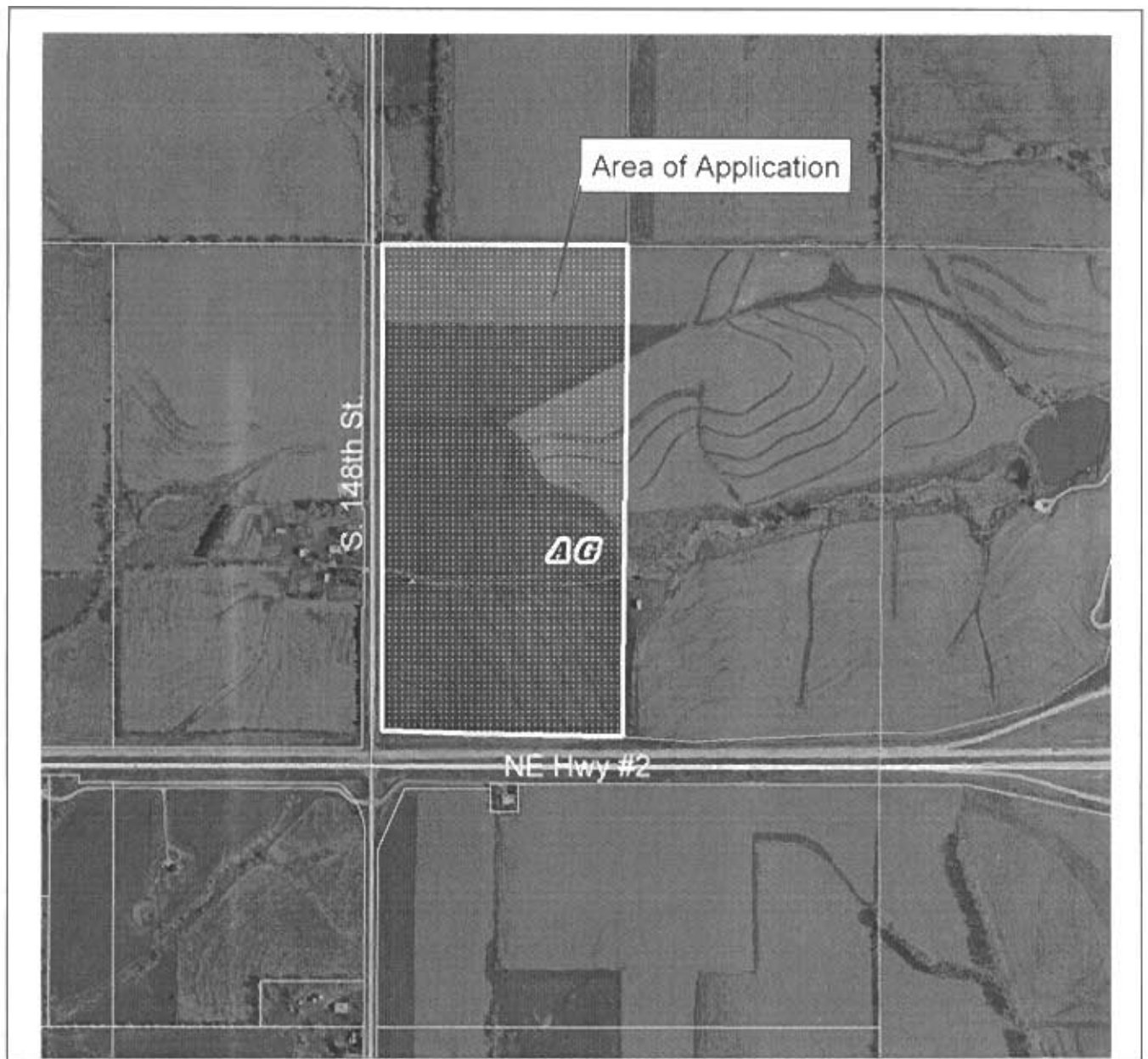
Prepared by:

Brian Will, 441-6362, bwill@ci.lincoln.ne.us
Planner
April 14, 2004

APPLICANT: U.S. Cellular Wireless Communications
3601 109th Street
Urbandale, IA 50322
210-1010

OWNER: Doyle Beavers
8690 West 69 Place
Arvada, CO 80004
421-0243

CONTACT: Douglas Rogers
LCC International
1023 Lincoln Mall
Lincoln, NE 68508
434-9307



2002 aerial

County Special Permit #04012 S. 148th St. & Hwy #2

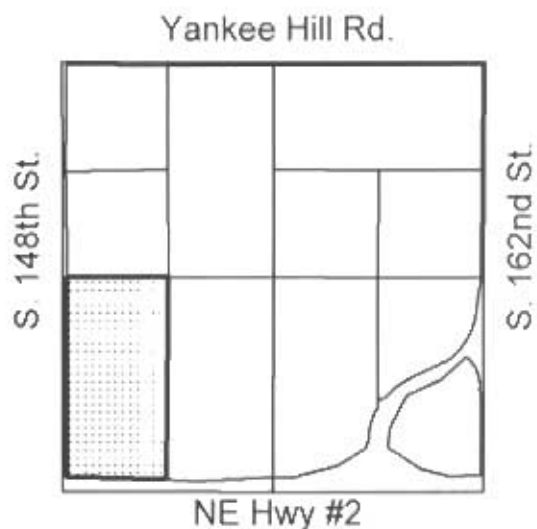
Zoning:

- R-1 to R-8 Residential District
- AG Agricultural District
- AGR Agricultural Residential District
- R-C Residential Conservation District
- O-1 Office District
- O-2 Suburban Office District
- O-3 Office Park District
- R-T Residential Transition District
- B-1 Local Business District
- B-2 Planned Neighborhood Business District
- B-3 Commercial District
- B-4 Lincoln Center Business District
- B-5 Planned Regional Business District
- H-1 Interstate Commercial District
- H-2 Highway Business District
- H-3 Highway Commercial District
- H-4 General Commercial District
- I-1 Industrial District
- I-2 Industrial Park District
- I-3 Employment Center District
- P Public Use District

One Square Mile
Sec. 27 T9N R8E



Zoning Jurisdiction Lines
City Limit Jurisdiction



Lincoln City - Lancaster County Planning Dept

OWNERSHIP CERTIFICATE**FILE NO:** 6010404**TO:** Marsha Summerhill
LCC International

Nebraska Title Company, authorized to engage in the business of abstracting in the State of Nebraska under Certificate of Authority No. 56, hereby certifies that the records of LANCASTER County, Nebraska have been carefully examined with referenced to the following described property, and from such examination finds as follows:

LEGAL DESCRIPTION:

Lot 18 of Irregular Tracts in the Southwest Quarter (SW 1/4) of Section 27, Township 9 North, Range 8 East of the 6th P.M., Lancaster County, Nebraska

Address: , Lincoln, NE 68508

OWNER OF RECORD:

Denny Jay LLLP

Effective Date: March 31, 2004 at

Nebraska Title Company

By:


Vice-President
Registered Abstractor

Please direct inquiries to: Joan Journey

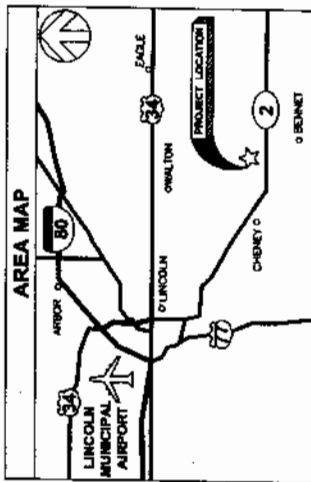


WIRELESS COMMUNICATIONS
CENTRAL REGION
3601 109TH STREET
URBANDALE, IA 50322

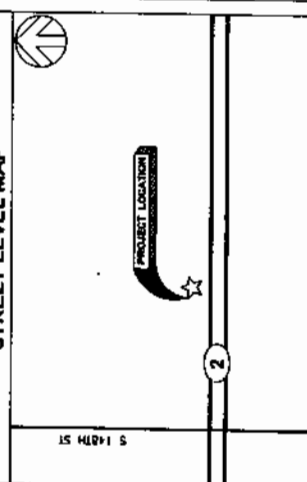
SITE NUMBER: 871340.1
SITE NAME: CHENEY
ADDRESS: ROKEBY RD. & S 148TH ST.
BENNET, NE 68317

LATITUDE: 40°43'07.024" N (NAD83)
LONGITUDE: 96°31'00.455" W (NAD83)
ELEVATION: 1396' (NAVD 88)
STRUCTURE: 250'-0" SST

VICINITY MAP



STREET LEVEL MAP



DRIVING DIRECTIONS

1. START OUT GOING SOUTHEAST ON TERMINAL
2. TERMINAL BECOMES W ADAMS ST.
3. MERGE ONTO I-80 W/US-77 S.
4. TAKE THE US-77 S EXIT- EXIT NUMBER 307.
5. MERGE ONTO SALT VALLEY RD/US-77 S VIA THE EXIT-ON THE LEFT.
6. MERGE ONTO VAN DORN ST/NE-2 E TOWARD LINCOLN/NEBRASKA CITY.
7. TURN RIGHT OFF VAN DORN ST/NE-2 E/TOWARD 9TH ST. CONTINUE TO FOLLOW NE-2 E.
8. TURN LEFT ONTO S 148TH ST.

THESE DOCUMENTS ARE DRAWN TO SCALE
FOR 24X36 SIZE SHEET.
DOCUMENTS PRINTED IN 11X17 SIZE SHEET ARE
REDUCED TO HALF THE ORIGINAL SCALE



CALL
1-800-851-5888
24 HOURS BEFORE
YOU DIG

PROJECT DESCRIPTION

THIS IS AN APPLICATION TO DEVELOP A FACILITY
CONSISTING OF PCS EQUIPMENT, TRANSMISSION CABLES, AND
DIRECTIONAL ANTENNAS. THE SIZE, HEIGHT, AND DIRECTION OF THE
ANTENNAS WILL BE DETERMINED BY THE ENGINEER. THE FACILITY
WILL BE LOCATED WITHIN THE SURROUNDING AREAS. THESE
INTERCONNECTS WILL ALLOW FOR AN INDEPENDENT COMMUNICATION
NETWORK THAT CAN CONTRIBUTE TO FUNCTION IF THE TELEPHONE (WIRE)
NETWORK IS INTERRUPTED. THE FACILITY WILL BE LOCATED IN AN AREA OF
NATURAL BEAUTY, AND WILL BE DESIGNED TO BE IN HARMONY WITH THE
HEALTH, SAFETY, AND WELFARE OF THE COMMUNITY AND SURROUNDING
AREAS BY PROVIDING RELIABLE WIRELESS
COMMUNICATIONS AT THE LOCATION.

SHEET INDEX

T-1	TITLE SHEET
LS-1	SITE SURVEY
GN-1	GENERAL NOTES
C-1	OVERALL SITE PLAN
C-2	ENLARGED SITE PLAN
A-1	NORTH & DIST ELEVATIONS
A-2	SOUTH & WEST ELEVATIONS

APR 1 2004

PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED
BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A
DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE
STATE OF NEBRASKA.



EXPIRES: 7/31/2004 DATE SIGNED: 05/01/04

PROJECT CONTACTS

APPLICANT/ OWNER	US CELLULAR 3601 109TH STREET URBANDALE, IA 50322
LANDLORD	DEWAY JAY LLP DEWAY, D. BEAUMONT (GEN. PARTNER) 8800 W. 89 PLAZA LINCOLN, NE 68508 CONTACT: BOB MASH PHONE: (402) 488-1387
CONSTRUCTION MANAGER	LCC INTERNATIONAL 1023 LINCOLN MALL LINCOLN, NE 68508 CONTACT: GUY PETERSON PHONE: (402) 434-8300
GENERAL CONTRACTOR	SUBJECT TO BID
ENGINEERING CONSULTANT	ASSOCIATED ENGINEERING, P.C. 1214 NORTH 160TH STREET SUITE 100 LINCOLN, NE 68118 PHONE: (402) 804-0097 FAX: (402) 933-8200
SURVEYOR	COMMUNITY LAND SURVEYING 1232 HIGH STREET LINCOLN, NE 68502 (402) 441-3791 FAX: (402) 441-3791
SITE ACQUISITION	LCC INTERNATIONAL 1023 LINCOLN MALL LINCOLN, NE 68508 CONTACT: MICHAEL BETH PHONE: (402) 434-8300
RF ENGINEER	LCC INTERNATIONAL 1023 LINCOLN MALL LINCOLN, NE 68508 CONTACT: BARRY THOMA PHONE: (402) 434-8300
ZONING	LCC INTERNATIONAL 1023 LINCOLN MALL LINCOLN, NE 68508 CONTACT: DOUGLAS ROOSEFS PHONE: (402) 434-8307
JURISDICTION	LANCASTER COUNTY SOUTH 21ST STREET LINCOLN, NE 68508 CONTACT: BRAD WELLS PHONE: (402) 441-8382
ELECTRIC COMPANY	MORRIS POWER PO BOX 54 ROCKA, NE 68430 CONTACT: ROCK VOLMER PHONE: (402) 423-3855
TELEPHONE COMPANY	ALL TEL 3615 SOUTH 21ST STREET LINCOLN, NE 68502 CONTACT: DONALD DRINK PHONE: (402) 4365884

ASSOCIATED ENGINEERING, PC
1214 N 160TH STREET
SUITE 100
LINCOLN, NE 68118
PHONE: (402) 804-0097

US Cellular
WIRELESS COMMUNICATIONS
3601 109TH STREET
URBANDALE, IA 50322

LCC
1023 LINCOLN MALL
LINCOLN, NEBRASKA 68508
(402) 434-8300

DATE: 05/01/04 BY: GUY PETERSON
APPROVALS:

SITE NO: 871340.1
ZONING: 0331/M
R.F.: CHENEY
CONSTRUCTION: CHENEY
OWNER: CHENEY

SITE NAME: CHENEY
SHEET NUMBER: 871340.1
CURRENT ISSUE DATE: 03/31/04

SUBMITTALS:
DATE DESCRIPTION REV
01/28/04/008 ZONING OMGS 0
02/10/04 REV. PER CITY 1
02/20/04 REV. PER CITY 2
03/31/04 REV. PER CITY 3

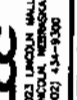
TITLE SHEET
SHEET NUMBER: 871340.1
T-1 3
PROJECT NUMBER: 871340.1



ASSOCIATED ENGINEERING, PC
 1214 N. 180TH STREET
 SUITE 100
 CHANDLER, AZ 85018
 P: (480) 948-4007



KUS Cellular
 1023 LINCOLN HALL
 LINCOLN, NEBRASKA 68508
 (402) 434-9300



BULOC
 1023 LINCOLN HALL
 LINCOLN, NEBRASKA 68508
 (402) 434-9300

DRAWN BY: JCK/BN
 DATE: 01/20/04
 DWG: 04/04

SITE NO.:
 ZONING:
 R.F.:
 CONSTRUCTION:
 OWNER:

SITE NAME:
CHENEY

SITE NUMBER:
871340.1

CURRENT ISSUE DATE:
03/31/04

SUBMITTALS

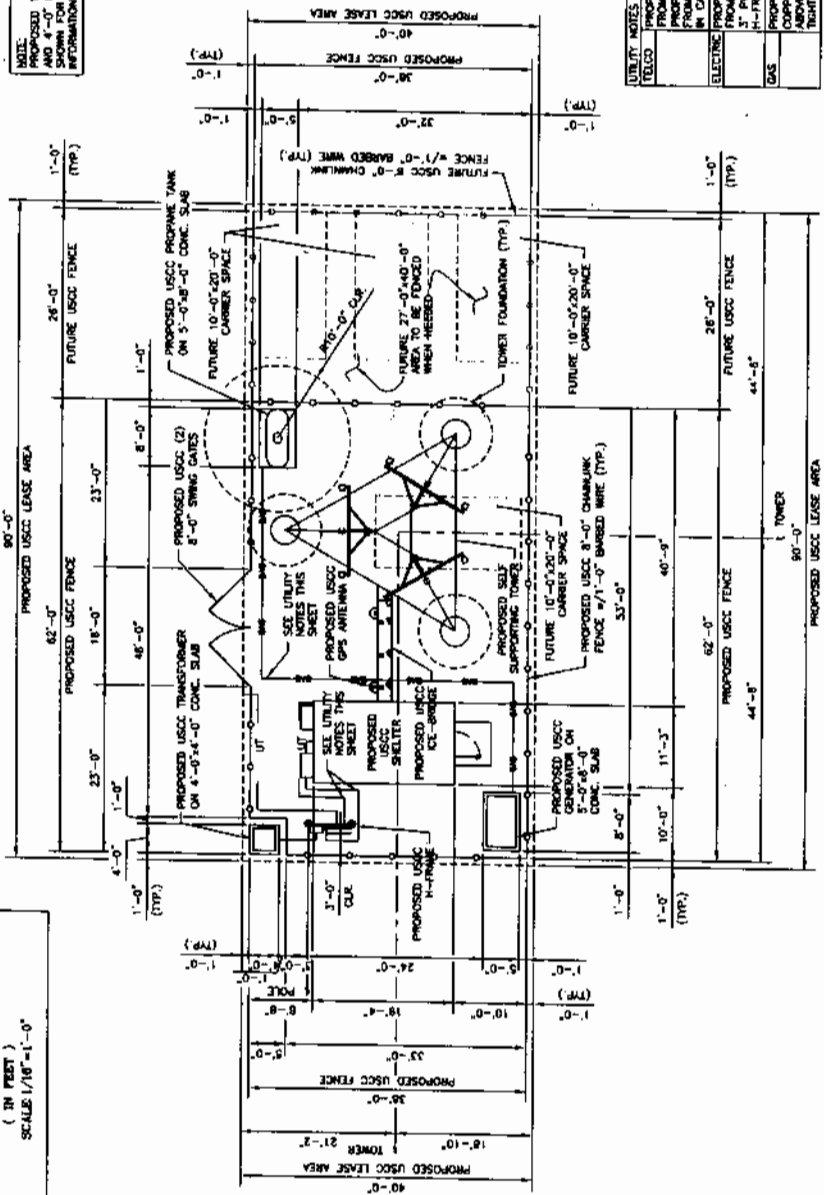
DATE	DESCRIPTION	REV.
01/20/04	100% ZONING DMS.	0
02/10/04	REV. PER CITY	1
02/25/04	REV. PER CITY	2
03/31/04	REV. PER CITY	3

ENLARGED SITE PLAN

SHEET NUMBER:
C-2

PROJECT NUMBER:
871340.1

NOTE: PROPOSED 12'-0" ACCESS DRIVEWAY AND 8'-0" UTILITY EASEMENT ARE NOT SHOWN FOR CLARITY. SEE C-1 FOR INFORMATION.



UTILITY NOTES

DATE	DESCRIPTION	REV.
01/20/04	100% ZONING DMS.	0
02/10/04	REV. PER CITY	1
02/25/04	REV. PER CITY	2
03/31/04	REV. PER CITY	3

GRAPHIC SCALES

FULL SIZE 24x36
 SCALE: 1/8"=1'-0"
 HALF SIZE 11x17
 SCALE: 1/16"=1'-0"

1 ENLARGED SITE PLAN
 SCALE: SEE GRAPHIC SCALE

ASSOCIATED ENGINEERING, PC
1214 N. 160TH STREET
SUITE 100
OMAHA, NE 68118
PH: (402) 884-8097

GRAPHIC SCALES

FULL SIZE: 24x36

16 0 8 16 32 64

(IN FEET)

SCALE: 1/16" = 1'-0"

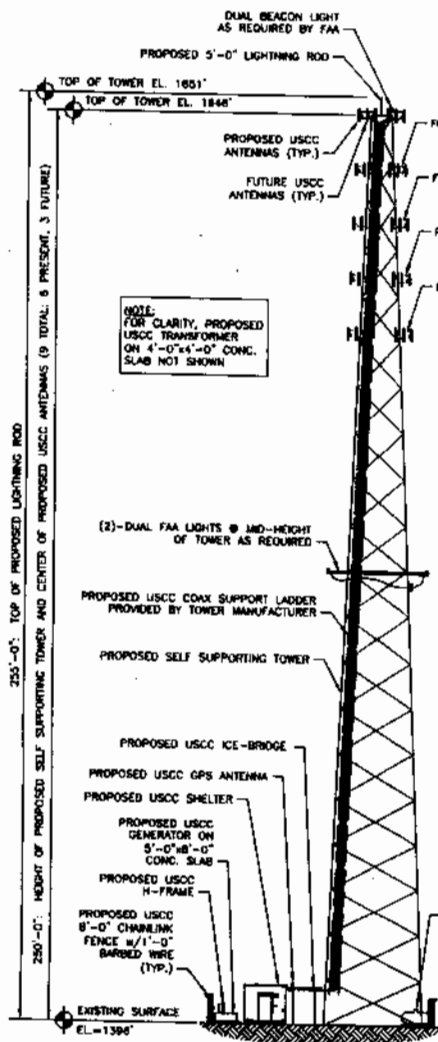
HALF SIZE: 18x17

32 0 32

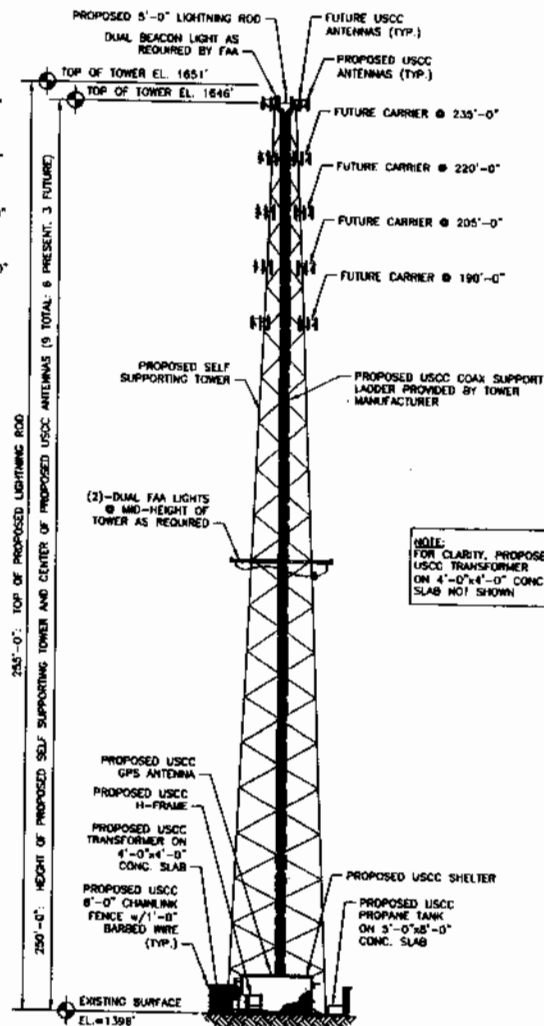
(IN FEET)

SCALE: 1/16" = 2'-0"


NOTES:
TOWER WILL HAVE A GALVANIZED FINISH.
LIGHTING IS RESTRICTED TO THE USE OF
WHITE LIGHTS DURING DAYTIME HOURS
AND RED DURING NIGHTTIME HOURS AS
ALLOWED BY FAA REGULATIONS.

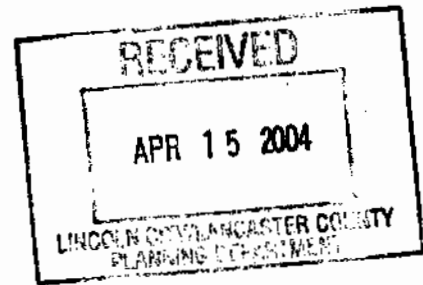


1 SOUTH ELEVATION
SCALE: SEE GRAPHIC SCALE



2 WEST ELEVATION
SCALE: SEE GRAPHIC SCALE

 US Cellular <small>A DIVISION OF SPRINT CORPORATION 10000 SPRING CREEK DRIVE DALLAS, TEXAS 75243-1699 © 2000 US CELLULAR</small>		ASSOCIATED ENGINEERING, PC 1216 SOUTH STREET OMAHA, NE 68116 PH: (402) 894-3097	
PROJECT NUMBER: _____ PROJECT NAME: _____		DRAWN BY: CHK-BY: JRY-BY: _____ DATE / TIME: DATE / TIME: TUE	
SITE NO. _____ ZONING: _____ R.F.: _____ CONSTRUCTION: _____ OWNER: _____		SITE NAME: _____ CHENEY	
SITE NUMBER: _____ 871340.1		CURRENT SCALE DATE: _____ 03/31/04	
QUANTITIES			
DATE	DESCRIPTION	REV.	
01/28/04	BDR ZONING DBRS.	0	
02/19/04	REV PER CITY	1	
02/20/04	REV PER CITY	2	
03/31/04	REV PER CITY	3	
SHEET TITLE			
SOUTH & WEST ELEVATIONS			
SHEET NUMBER: _____ A-2		REVISION: _____ 3	
PROJECT NUMBER: _____ 871340.1			



February 3, 2004

Mr. Brian Will
Planner
City of Lincoln-Planning Dept.
555 South 10th Street - Suite 213
Lincoln, NE 68508

Dear Mr. Will:

This zoning statement letter is in regard to our Special Permit application to install a new 250' Self-Support tower and ground equipment compound on property owned by Denny Jay LLLP, Doyle Beavers (general partner) and located at approximately Rokeby Rd. & S 148th Street, Bennet, NE 68317.

The current zoning of the property is Agriculture. Prior to searching for a location to install a new tower, LCC personnel looked for towers and/or buildings on which to collocate. The search ring area had no towers or buildings on which US Cellular could collocate, nor was there any commercial or industrial property. Basically the area in which we need to place a tower had no Preferred site locations, nor any Limited Preference Site locations.

There are 4 towers and 3 water tanks that are visible to the west of the proposed location. The reasons that these sites will not work for the new site we are proposing are as follows:

1. - US Cellular will have a site at the Pine Lake Golf course on the water tank, which falls within an approximate 2 mile radius of the other 2 water tanks and the other 4 towers.
2. - Coverage from the Easterly most tower is unacceptable and will not connect with our tower in Palmyra. Furthermore, this tower is approximately 4.25 miles outside of our search ring area, (see coverage map labeled "Coverage from the nearest tower outside Search Ring").

There are 2 visible towers to the East of the proposed site; the first tower sits approximately 3.75 miles outside of our search ring area and the 2nd sits approximately 5 miles outside our search ring. The 2nd tower is also owned by the State of Nebraska and when we were looking for a site closer to Palmyra we were denied collocation on the State's tower.

The closer of the 2 towers to the east falls within the coverage of our tower in Palmyra. The most important issue as to why the existing tower to the East will not work is due to the BTA boundary, which is the Lancaster/Otoe County line. The equal distance between US Cellular's towers on the East and West of the County line is critical to continuous coverage along Highway 2, due to what is called a hard-hand off at these 2 towers. Please refer to the maps labeled "Distance of neighbor sites to 871340-Cheney" and "Lincoln-Omaha BTA border sites". Our

RF engineer has also compiled a statement explaining the challenges and issues with a BTA border and I will further explain and answer questions at the public hearing. The proposed tower will be a galvanized finish and will have white lights during the day and red lights at night.

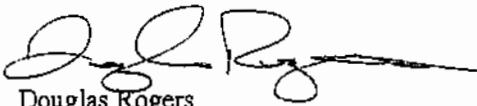
The proposed 250' self support tower will be engineered for a total of 5 carriers and the proposed ground compound will have adequate space to accommodate ground equipment or shelters for 5 carriers. We feel that by engineering and constructing this tower with more than the required future carriers issue in mind it will help eliminate the need for a new tower in this vicinity for some time into the future.

We are requesting a waiver of the fall zone and not the side yard setback. We are asking for the waiver of the fall zone to help preserve as much farmable ground as possible.

We respectfully ask Lancaster County to review and approve this special permit to construct the proposed tower and compound for US Cellular.

Thank you for your time and consideration in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Douglas Rogers', with a long horizontal flourish extending to the right.

Douglas Rogers
LCC International



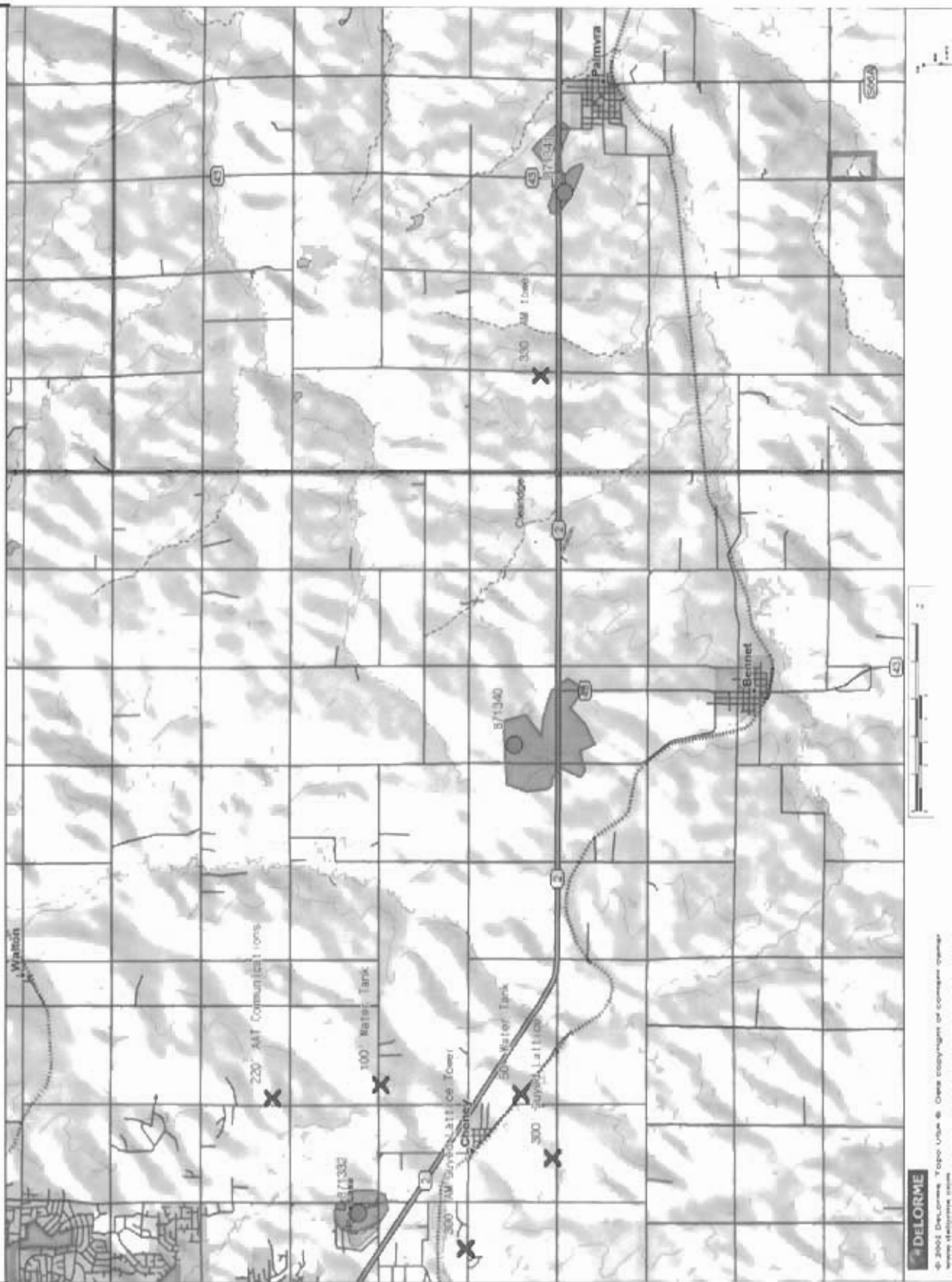
The Knowledge that Powers the Network™

RF design considerations for Site 871340 hereafter referred to as Cheney. Upon the initial design of the Lincoln market for US Cellular Company, hereafter referred to as USCC, by LCC International, a search area, indicated on the maps, by the highlighted polygon areas, were released to LCC site acquisition for each area in which a site was required to complete the design objectives set out by USCC corporate for the Lincoln and surrounding areas. In preparation for the design of Lincoln, several constraints and considerations were taken into account.

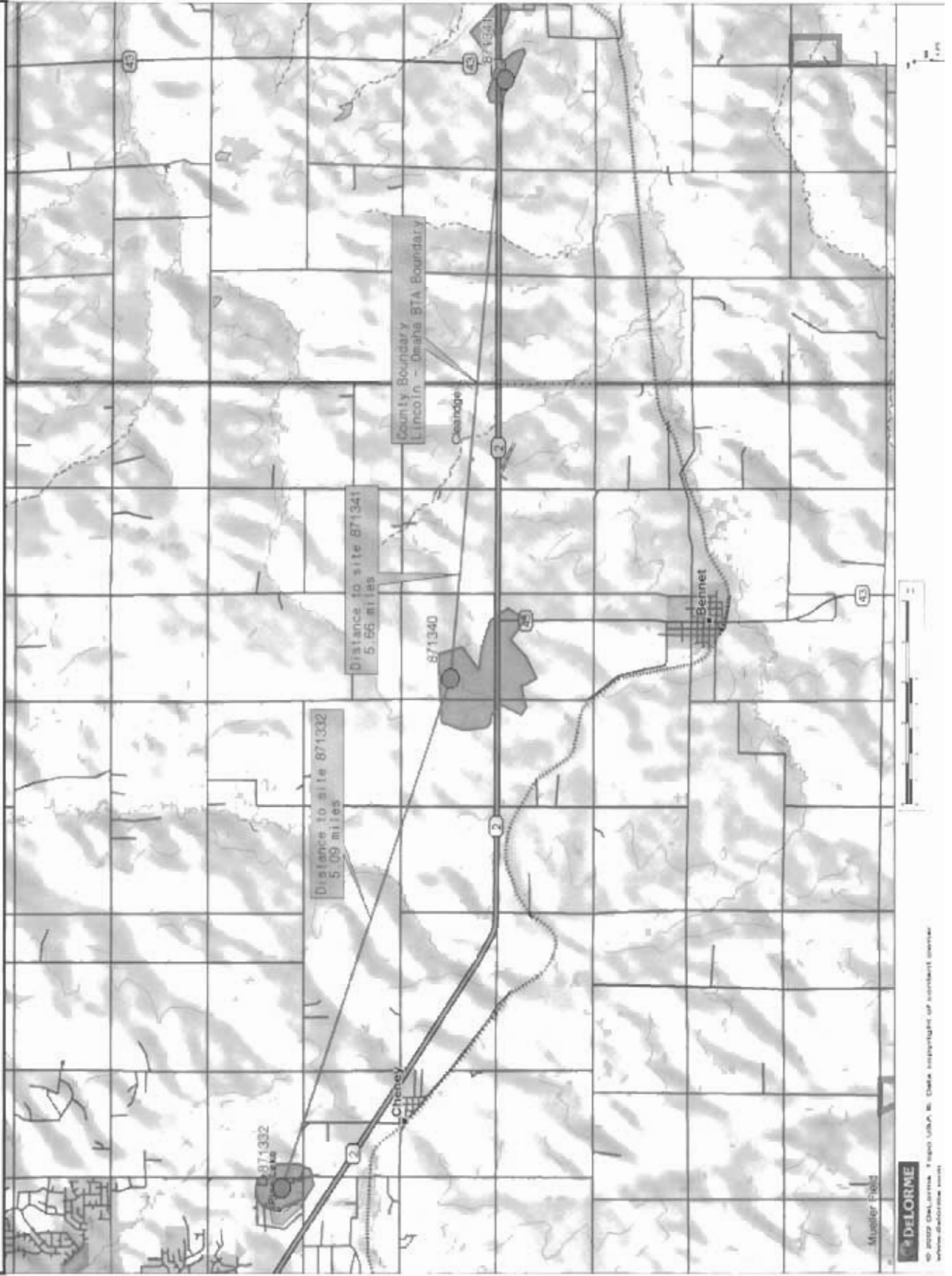
The area just to the East of the Cheney site which is located at the County boundary is an area set by the FCC as a BTA (Basic Trading Area) border. By separating the MTA (Major Trading Area) into smaller regions called BTA's this allows the FCC to regulate which carriers are allowed to operate on what frequency in a certain geographical area. Larger carriers have bid huge amounts and have been awarded frequencies that span across BTA borders and others have not been so fortunate which means they have different frequencies on either side. This scenario requires special consideration for an event called a Hard Handoff, hereafter referred to as HHO. This is where one frequency will hand off to another. This requires certain signal levels from each frequency to be at a certain point to achieve this HHO. This requires evaluation of every candidate in the immediate area to the BTA border to allow a successful HHO along with achieving the coverage objective that was previously set.

The initial coverage objective for this area was coverage on Highway 2 and the town of Bennet. Considerations for placement of this site were the height of the terrain, proximity to Hwy 2, the BTA border, and the town of Bennet. This location needed to sit in an area that would allow connectivity to the neighboring sites to allow contiguous coverage on Hwy 2. I have indicated on the maps provided what the distance is to the neighboring sites. The county boundary is also indicated on the map as a highlighted vertical line. This vertical county boundary line is also the BTA boundary that was previously referred to. With the terrain height, the location of neighboring candidates, and coverage objective of the area, the candidate named Cheney was chosen as the prime candidate because all objectives and considerations were met. This site was submitted to and approved by USCC before moving forward. The selected site was reviewed by USCC to verify that LCC had considered and met the RF design requirements and objectives for coverage on Hwy 2 and the surrounding area.

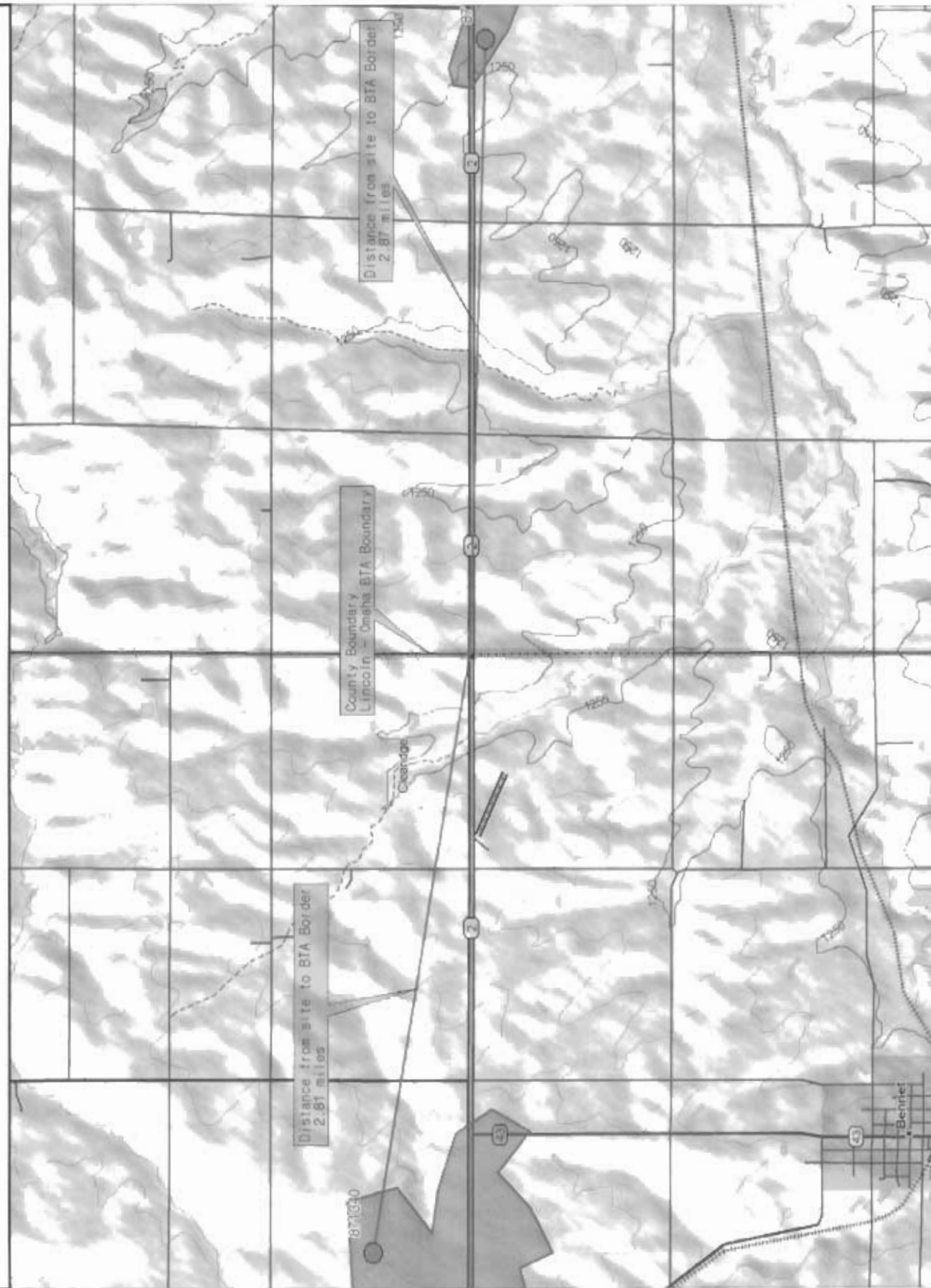
OVERALL MAP OF TOWERS IN THE VICINITY / SEARCH RING

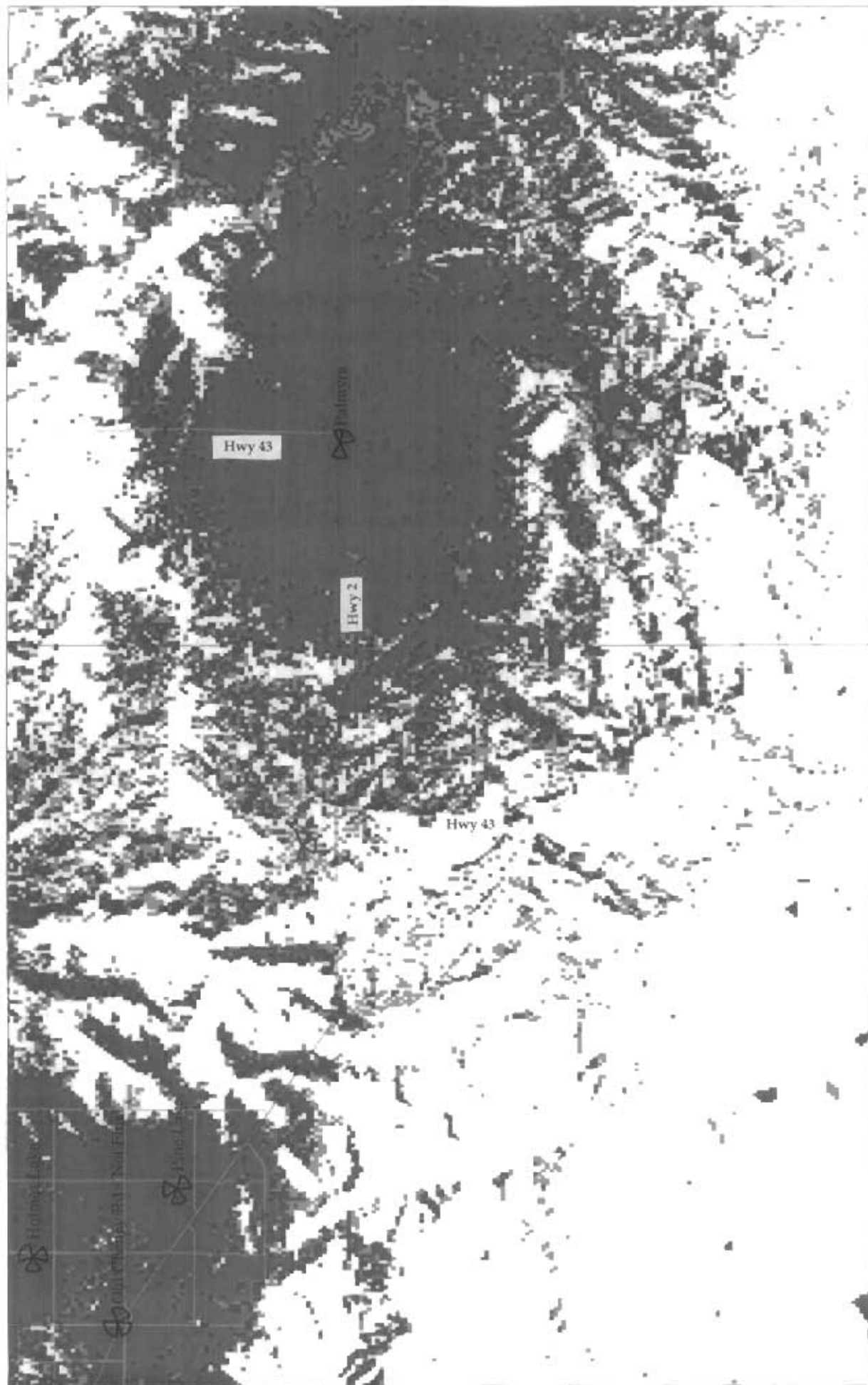


Distance of neighbor sites to 871340 - Cheney



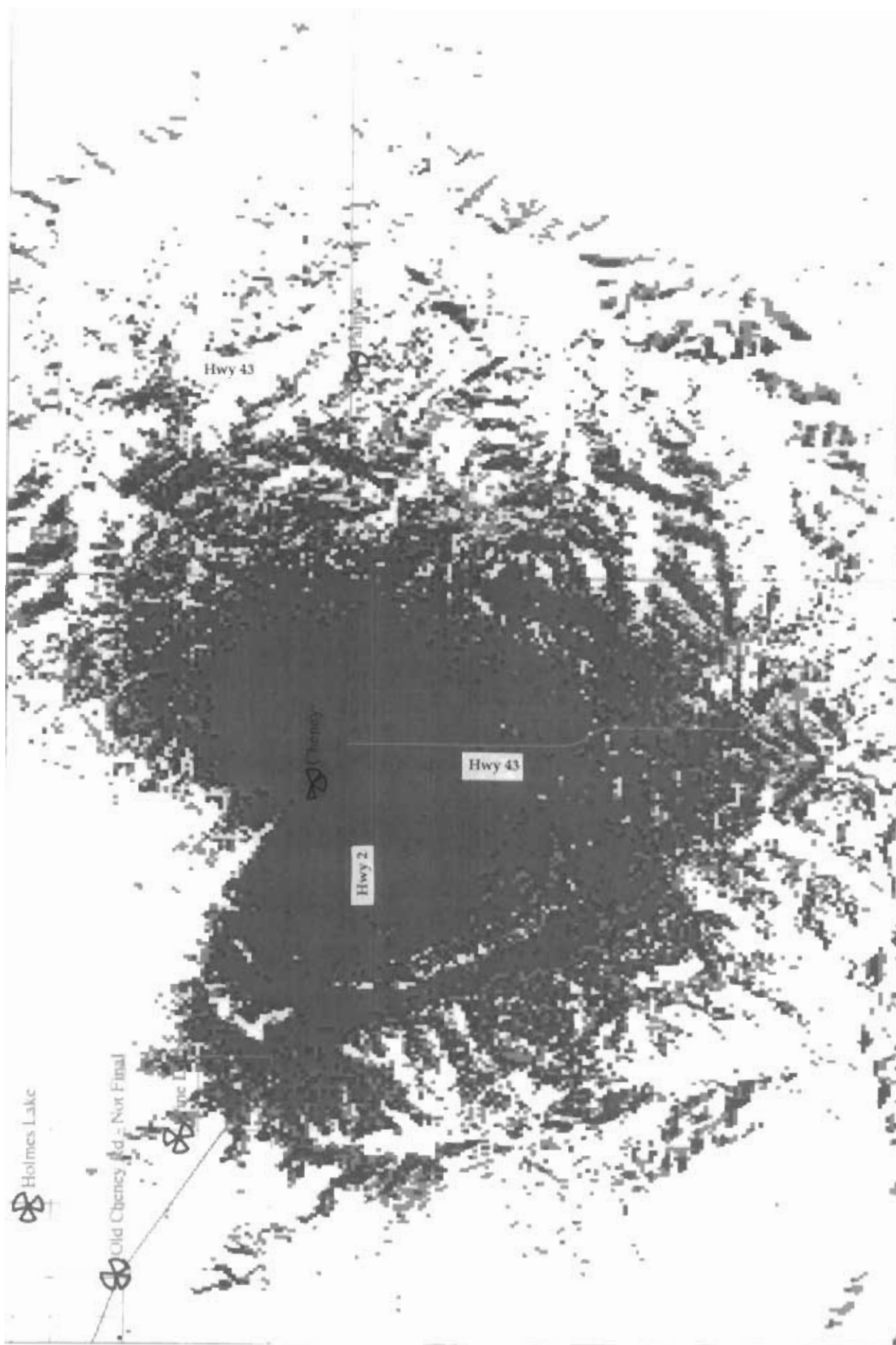
Lincoln - Omaha BTA border sites





COVERAGE W/O NEW TOWER

- ☒ Coverage
- ☐ No Coverage



COVERAGE

No COVERAGE

COVERAGE WITH NEW TOWER

43

BTA
Border

84th

88th

Pine Lake

134th

Yankee Hill Rd

Charney Test Candidate

7 miles to the
BTA Border

Hwy 2 Palmyra

1 2
Miles

N

Coverage from the nearest tower outside of the search ring

■ COVERAGE